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Satellite to Study the Space in Space Nears Launch

A satellite that will examine the "empty" space between stars has reached a milestone towards a December launch with its arrival this week at the Vandenberg Air Force Base, Calif., for integration with the launch vehicle.

The Cosmic Hot Interstellar Plasma Spectrometer (CHIPS) satellite, the first in NASA's University-class Explorers Program, will examine the interstellar medium, the gas that fills the space between stars.

"When you look up in the night sky and see mostly darkness, you get the impression that the volume between the stars must be empty," said Dr. Mark Hurwitz, CHIPS principal investigator from the University of California, Berkeley. "However this space is filled with gas and dust. CHIPS will give us invaluable information in the origin, physical processes and properties of the hot gas in the nearby interstellar medium."

Just as raindrops split sunlight into the colors of the rainbow, the CHIPS instrument will collect and separate the diffuse extreme ultraviolet glow from the interstellar medium. By measuring the distribution and intensity of the glow, scientists will be able to test competing theories about the formation of the clouds of hot interstellar gas that surround our solar system.

CHIPS arrived at Vandenberg October 14. It will fly as a secondary payload, with the Ice, Cloud and Land Elevation Satellite (ICESat) as the primary payload, aboard a Delta II rocket. The launch is currently scheduled for mid-December.

The CHIPS satellite, which weighs 131 pounds and is the size of a large suitcase, will orbit about 350 miles above the Earth. It is expected to operate for one year.

The CHIPS satellite is sponsored by the Office of Space Science, NASA Headquarters, Washington, D.C. The CHIPS instrument was built at the Space Science Laboratory of the University of California, Berkeley, and the spacecraft bus was built by SpaceDev, Inc. of Poway, Calif. The project is managed at the NASA Goddard Space Flight Center's Wallops Flight Facility, Wallops Island, Va.

More information on the CHIPS is available at:

http://chips.ssl.berkeley.edu

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